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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 3, 2017 / 2018

### PCA 0084 – COMPUTER SYSTEM AND WEB DESIGN (Foundation in Business)

4 JUNE 2018  
2.30pm – 4.30pm  
(2 Hours)

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#### INSTRUCTIONS TO STUDENT

1. This question paper consists of 3 pages (excluding the cover page) with 5 questions only.
2. Attempt **ALL** questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

**QUESTION 1 [10 Marks]**

- a. Explain the difference between a *standalone computer* and a *networked computer*.  
(2 marks)
- b. A general purpose computer is made up of **FOUR (4)** separate hardware components. What are they?  
(2 marks)
- c. Describe how the following printers print characters on paper.  
i. Ink jet printer  
ii. Laser printer  
iii. Dot-matrix printer  
(3 marks)
- d. Match the descriptions in the right column with the device in the left column of **Table 1**.

**Table 1**

Devices	Descriptions
___ i. Pointing devices	A. CRT, LED, LCD
___ ii. Monitor	B. Can turn scanned documents into machine-readable form
___ iii. Keyboard	C. Produce audio output
___ iv. Headset	D. Biometric device
___ v. OCR device	E. Mouse, trackball, touchpad
___ vi. Fingerprint scanner	F. QWERTY and Dvorak designs

(3 marks)

**QUESTION 2 [10 Marks]**

- a. Secondary storage has two components: *storage media* and *storage devices*. Explain the difference in terms of their functions between storage media and storage devices.  
(2 marks)
- b. The speed of a computer is determined by many elements, some related to hardware and some related to software. Point out and describe **FOUR (4)** hardware components contribute to the speed of a computer.  
(4 marks)
- c. Discuss the problem and solution associated with the heat generated by the processor in a computer.  
(2 marks)
- d. Explain the concept of data representation in digital computers.  
(2 marks)

Continued ...

**QUESTION 3 [10 Marks]**

- a. An operating system (OS) is the most important software that runs on a computer and without it, a computer is useless.
- Discuss any **THREE (3)** functions of OS.  
(3 marks)
  - Name at least **TWO (2)** common operating systems for personal computers.  
(1 mark)
- b. Name the utility program to do the following task.
- To prevent, search, detect, and remove malicious software like worms, Trojans and adware.
  - To detect and protect a personal computer from unauthorized intrusions.
  - To reduce the file size of one file or to group many files and archive them into one file which can reduce the disk space.
  - To display, organize, copy, rename, delete, move and sort files and folders.  
(2 marks)
- c. As mentioned in class, there are **FOUR (4)** groups of application software. Name them and explain, in brief, the uses of each group of the software and give at least **ONE (1)** example of program of each group.  
(4 marks)

**QUESTION 4 [10 Marks]**

- a. Refer to **Figure 1**. Network A and Network B are among the most common LAN network topologies proposed for student use in the secondary school or small college campus. However, they also have disadvantages. Name the topology of Network A and Network B and explain at least **TWO (2)** disadvantages of each topology.

**Figure 1**

(3 marks)

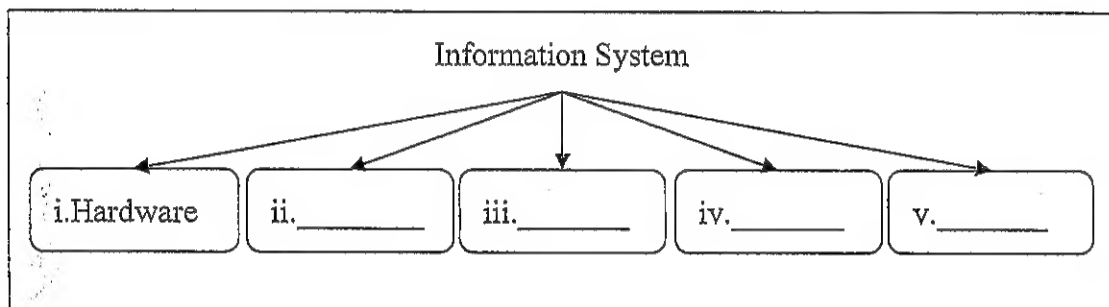
- b. Network communication standards and protocols provide the essential rules that enable hardware and software to work together and allow devices to communicate over both wired and wireless computer networks. Name **THREE (3)** of them and briefly explain how they work.  
(3 marks)

**Continued ...**

- c. Why are graphics important in a multimedia presentation? Discuss.  
(2 marks)
- d. Besides graphics, there are few more elements that are considered as multimedia elements. Name **TWO (2)** and explain why you think the elements are also important to be placed in a multimedia presentation.  
(2 marks)

**QUESTION 5 [10 Marks]**

- a. Database software, often called a database management system (DBMS) is a very important to business organizations. Why? Suggest **FOUR (4)** reasons.  
(2 marks)
- b. **Diagram 1** below illustrates the five general components of information systems. The first component is given. Complete the diagram by providing another **FOUR (4)** components.

**Diagram 1**

(2 marks)

- c. Hackers, crackers, script kiddies and corporate spies are a person or group of individuals associated with computer crimes. Define *computer crimes* and its difference from *cybercrime*.  
(2 marks)
- d. Many companies and schools have problem with hardware theft and vandalism.
- i. What is the difference between *hardware theft* and *vandalism*?  
(2 marks)
- ii. Identify **FOUR (4)** security techniques to prevent hardware theft and vandalism.  
(2 marks)

**End of Paper**